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Circular Futures in Migration: Sustainable and Circular Economy Practices among Migrant Entrepreneurs in Türkiye

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Abstract

This chapter presents a descriptive, exploratory analysis of how migrant entrepreneurs in Türkiye relate to sustainability and circular economy ideas in their everyday business practices. Rather than testing a specific theoretical model, the study aims to map basic patterns of awareness, interpretations, and self-reported behaviors among a diverse group of migrant-owned small businesses. The research draws on semi-structured interviews with entrepreneurs from different national backgrounds, sectors, and cities. The interview guide covers personal and migration histories, motivations for starting a business, general understandings of sustainable business, and concrete examples of practices such as reuse, repair, waste reduction, and resource efficiency. It also explores perceived obstacles and support mechanisms, including the role of co-ethnic networks and wider local connections. Using a simple qualitative content analysis, the study identifies recurring themes without claiming exhaustive coverage or theoretical saturation. The findings suggest that many participants associate sustainability primarily with economic continuity, business survival, and avoiding waste, while formal environmental terminology is less familiar. Practices that can be considered circular – such as reusing materials, minimising waste, or extending product lifetimes – often

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emerge as cost-saving and risk-management strategies rather than as explicit environmental commitments. At the same time, limited access to capital, regulatory uncertainty, and constrained information about support schemes are reported as key barriers to developing these practices further.

8.1 Introduction

In contemporary economies, sustainability and circular economy models have emerged as critical strategic approaches for businesses facing accelerating resource scarcity and environmental degradation (Munir & Fausiah, 2025; Suchek et al., 2022). Within this context, the circular economy is increasingly framed as a foundational pillar of sustainable development. It aims to minimize waste generation and resource consumption by keeping materials, products, and resources in circulation at their highest possible value throughout their life cycle ("Özpolat & Nakıpoğlu Özsoy, 2022; Mamash et al., 2025). In contrast to the traditional linear "take–make–dispose" model, circular approaches promote resource efficiency, waste minimization, and renewable solutions across the entire value chain of firms (Mamash et al., 2025). This transition reflects an urgent need to decouple economic growth from resource use and environmental degradation (Ahmadov et al., 2024).

Furthermore, practices such as repair, reuse, and refurbishment shape consumers' access to affordable and durable goods and services. From this perspective, circularity is a topic linked not only to environmental performance but also to the dimension of fair consumption, which is particularly relevant to daily market participation for low-income households and economically vulnerable communities (Stolyarov et al., 2024).

In this regard, green entrepreneurship is gaining importance as a field that generates economic value while offering innovative responses to environmental challenges, and it aligns closely with circular economic principles (Adekunle, 2024). The circular economy concept is closely connected to core issues such as efficient resource use, clean energy solutions, sustainable agriculture, and eco-innovation (Salaheldeen et al., 2024). By slowing, closing, and narrowing production loops, it offers an alternative to waste-oriented systems and seeks to preserve the utility and value of products, components, and materials over time (Suchek et al., 2022). Accordingly, circular economy principles encourage firms to use resources more efficiently, extend product lifetimes, and reduce waste generation in their operations (Kamal & Jasni, 2023). Adopting such models can contribute to environmental sustainability while also creating cost savings and new market opportunities for businesses

(Zahran, 2024). More broadly, circular approaches are seen as holding potential to enhance the resilience of production and consumption systems and address major societal challenges such as climate change, excessive waste, and biodiversity loss (Angelis & Vesci, 2024).

From this perspective, firms are increasingly expected not only to reduce the environmental harm caused by their activities, but also to develop strategies that actively restore or compensate for such damage (Bayram & Öztırak, 2023). The economic dimension of the circular economy encompasses the design of product–service systems, the adoption of refurbishment and remanufacturing to extend product life, and the creation of circular supply chains that enable the recovery of valuable resources (Başkaya & Özdemir, 2024). These dynamics are particularly relevant for migrant entrepreneurs, who often operate under conditions of limited capital and restricted access to formal support mechanisms, yet may develop innovative business models and cost-reducing strategies by integrating elements of circularity into their practices (Zülfikaroğlu, 2024). Although linear economic models tend to externalize environmental costs and have contributed substantially to ecological degradation, mounting pressures to restructure production and consumption patterns render the shift towards circularity increasingly unavoidable (Aksu & Çıraklar, 2022). Circular economic systems, which seek to maintain the value potential of resources for as long as possible, require the redesign of business models and processes with a view to reducing resource input while maximizing utility (Kılıç & Kurgun, 2025). Enhancing resource efficiency and minimising waste are thus recognised as strategic approaches that can deliver both environmental benefits and significant cost savings for firms (Yaş, 2022). In this vein, the core "reduce, reuse, recycle" (3R) principles of the circular economy enable businesses to optimize resource use, reduce waste generation, and lower their environmental footprint (Sürmen & Çokmutlu, 2022). According to the Ellen MacArthur Foundation, companies that adopt circular models can substantially reduce costs and improve efficiency while decreasing their ecological impact (Quelal et al., 2024).

Against this backdrop, migrant entrepreneurs represent a particularly interesting group. Operating with constrained resources, they frequently depend on frugality, repair, and reuse as everyday strategies to keep their businesses viable. These practices may align closely with circular economic principles, even when they are not explicitly framed in environmental terms. Understanding how migrant entrepreneurs interpret and implement such practices can therefore provide valuable insight into how circular behaviors

emerge from below in contexts of mobility, vulnerability, and limited access to formal support.

Building on this premise, the present study has a predominantly descriptive and exploratory aim. It seeks to map how migrant entrepreneurs in Türkiye understand the notions of sustainability and circular economy, and to document the kinds of everyday business practices they associate with these ideas. Rather than attempting to test a specific theoretical model or to offer a comprehensive explanatory framework, the study focuses on identifying recurring patterns in awareness, meanings, and self-reported behaviors related to waste reduction, reuse, repair, resource efficiency, and long-term business continuity. In doing so, it aims to offer an initial empirical snapshot that can serve as a basis for more in-depth future research on the relationship between migration, entrepreneurship, and circular practices.

Conceptually, the findings can be situated within entrepreneurship perspectives that distinguish necessity- and opportunity-driven venturing and within effectuation theory. Consistent with the study's conclusion that "sustainability" is primarily understood as business continuity under precarious conditions, many participants' accounts reflect a necessity entrepreneurship context in which limited capital, legal-economic uncertainty, and restricted access to formal support make cost-saving and waste-avoiding routines central to survival. This helps explain why maintenance and repair, reuse and repurposing, and resource efficiency appear not as peripheral "green" add-ons but as core operational practices that reduce expenditure and prolong the life of assets and infrastructures. At the same time, the data also resonates with effectual logics: entrepreneurs repeatedly describe starting from the means at hand, leveraging co-ethnic and local networks for information and services, and adapting to contingencies rather than implementing pre-planned sustainability strategies. In this view, migrant status shapes circularity less through explicitly environmental motivations and more through the constraints and opportunity structures that condition entrepreneurial decision-making in Turkish cities—thereby producing a form of everyday, practice-based circularity that remains largely informal and undervalued in mainstream circular economy debates (Reynolds et al., 2002; Sarasvathy, 2001). To make this exploratory aim explicit, the study is guided by the following research questions:

- How do migrant entrepreneurs in Türkiye understand and interpret sustainability and the circular economy in relation to everyday business survival and continuity?

- Which everyday business practices reported by migrant entrepreneurs resonate with circular economy principles such as waste reduction, reuse, repair, and resource efficiency?
- What constraints and enabling factors do migrant entrepreneurs perceive as shaping the emergence and continuity of such practices in the host-country context?

Empirically, the chapter draws on semi-structured interviews conducted with migrant entrepreneurs operating in different sectors and cities in Türkiye. The interview protocol includes questions on personal and migration backgrounds, motivations for starting a business, general perceptions of sustainable business practices, and concrete examples of how resources, materials, and products are managed in day-to-day operations. Additional questions explore perceived barriers and enabling factors, including the role of co-ethnic and local networks in accessing knowledge, finance, and market opportunities. The analysis relies on a basic qualitative content analysis, through which interview transcripts are coded to identify central themes and illustrative narratives, without claiming theoretical saturation.

The remainder of the chapter is structured as follows. The next section briefly reviews the literature on circular economy and green entrepreneurship, with a particular focus on the limited but growing body of work addressing migrant entrepreneurship in this context. The subsequent section outlines the research design, describing the interview sample, data collection process, and analytical approach. This is followed by a findings section that presents the main descriptive results, organised around three dimensions: understandings of sustainability and circularity, everyday practices that resonate with circular principles, and perceived constraints and needs. The final section discusses the implications of these findings, highlights the limitations of the study, and suggests avenues for future research on migrant-led practices within broader sustainability transitions.

8.2 Literature Review

8.2.1 Circular Economy: Concepts, principles, and evolving business models

The circular economy has emerged over the past decade as a central paradigm in debates on sustainable development, industrial transformation, and resource governance. At its core, the circular economy seeks to transcend

the dominant linear "take–make–dispose" logic by promoting closed material loops, resource efficiency, and waste minimization across value chains (Kunday, 2023; Neumann, 2021). Rather than viewing waste as an inevitable byproduct of production and consumption, circular perspectives reframe waste as a potential resource that can be recovered, repurposed, and reintegrated into economic systems through various technological, organizational, and behavioral innovations.

Conceptually, the circular economy is often associated with strategies that extend the life cycle of products and materials, reduce virgin resource inputs, and preserve value for as long as possible. These strategies include, but are not limited to, reuse, repair, refurbishment, remanufacturing, recycling, and industrial symbiosis, as well as more systemic solutions such as product-service systems and sharing platforms (Kunday, 2023; Premyanov et al., 2024). The now widely cited "R-hierarchies" of reduce, reuse, and recycle—sometimes expanded into more complex taxonomies—capture the idea that different interventions can be ranked according to their potential to prevent waste and optimize resource use (Sürmen & Çokmutlu, 2022).

From a business perspective, circular economy thinking has given rise to a broad set of business models that challenge conventional notions of ownership, production, and consumption. Recycling-oriented ventures focus on recovering secondary raw materials from post-consumer or post-industrial waste streams, often using advanced sorting and processing technologies (Kunday, 2023). Resource value extension models are built around the refurbishment, remanufacturing, and resale of products, thereby prolonging their usable life and delaying entry into waste streams (Premyanov et al., 2024). Collaborative consumption and sharing platforms, in turn, facilitate access-based consumption of underutilized assets—such as vehicles, tools, or workspaces—reducing the need for individual ownership and potentially lowering overall resource demand (Kamal & Jasni, 2023).

Empirical studies show that such circular models can yield significant environmental benefits by reducing greenhouse gas emissions, lowering material throughput, and decreasing pressure on landfills and ecosystems (Özbuğday & Tirgil, 2022). At the same time, they can generate new jobs, stimulate local economic development, and open market niches, particularly in labor-intensive sectors such as repair, refurbishment, and recycling. However, the diffusion of circular practices is uneven across sectors, territories, and firm sizes. While some manufacturing industries have begun to invest in design for disassembly and material recovery, many small and medium-sized enterprises (SMEs) face barriers related to capital constraints, regulatory complexity, and limited access to knowledge and technology (Neumann, 2021).

Institutional and infrastructural enablers are therefore crucial in shaping the trajectories of circular transitions. Makerspaces, fab labs, and repair cafés, for example, provide shared tools, training, and spaces for experimentation that lower entry barriers for individuals and small firms interested in circular innovation (Premyanov et al., 2024). Business incubators and accelerators that are explicitly oriented towards green or circular entrepreneurship can connect startups with mentors, investors, and policy programs, thereby enhancing their survival prospects (Kunday, 2023; Ekinci, 2022). At a policy level, various instruments—ranging from extended producer responsibility schemes and green public procurement to tax incentives and regulatory sandboxes—have been introduced in different contexts to stimulate circular investment and innovation (Polychronopoulos & Nguyen-Duc, 2024).

Despite this proliferation of initiatives, scholars underline that the circular economy remains a contested and evolving concept, with diverse interpretations and implementation pathways. Critical perspectives warn that circular rhetoric can be coopted by incumbent actors without leading to substantive environmental improvements, or that efficiency gains can be offset by rebound effects if overall consumption keeps rising (Neumann, 2021). Moreover, much of the early circular economy literature has focused on technological solutions and business models, paying comparatively less attention to social justice, labor conditions, and the distribution of costs and benefits across different groups. The specific position of marginalized or vulnerable actors—such as migrant and refugee entrepreneurs—within circular transitions has, until recently, received little systematic attention (Kunday, 2023; Kamal & Jasni, 2023).

8.2.2 Sustainability and green entrepreneurship

The concept of sustainability, particularly as articulated through the "triple bottom line" of economic, environmental, and social dimensions, has become a central reference point for contemporary policy and business discourse. Within this broader field, green and sustainable entrepreneurship refer to entrepreneurial activities that seek to create economic value while simultaneously generating positive environmental outcomes and, in many cases, social benefits (Alpdoğan & Atik, 2023; Balli, 2019). Green entrepreneurs are often portrayed as key agents of change, capable of challenging unsustainable production and consumption patterns by introducing cleaner technologies, eco-innovative products, and more responsible business models.

Empirical research has identified a wide range of sectors in which green and sustainable entrepreneurship are particularly visible, including renewable energy, sustainable agriculture, organic food, waste

management, eco-tourism, and energy-efficient construction (Alpdoğan & Atik, 2023; Neumann, 2021). In these domains, entrepreneurial ventures can contribute to resource efficiency, emission reductions, and biodiversity protection, while also creating jobs and supporting regional development. For example, waste-based businesses can transform discarded materials into marketable products, thereby reducing landfill use and creating livelihood opportunities for local communities (Döngüsel Ekonomi Yenilikler ve İstihdam, 2022).

From a theoretical standpoint, sustainable entrepreneurship has been linked to opportunity recognition processes that are shaped by environmental challenges and regulatory contexts. Entrepreneurs may identify business opportunities in unmet societal needs—such as affordable clean energy or improved waste services—or in emerging policy frameworks that create new markets for green products and services (Neumann, 2021). At the same time, they often face considerable barriers, including high upfront investment costs, uncertain demand, and limited access to finance or technical expertise (Borrero & Yousafzai, 2025).

Studies on the impacts of green entrepreneurship suggest that such ventures can contribute to "green growth" by aligning environmental objectives with competitiveness and innovation (Alpdoğan & Atik, 2023). They can also foster social inclusion when they target underserved communities, create employment for vulnerable groups, or adopt participatory governance models. However, the empirical evidence base remains fragmented. Many studies rely on small samples or case studies, and there is relatively little systematic measurement of environmental and social impacts using robust indicators (Özbuğday & Tirgil, 2022; Neumann, 2021). This limits the ability to generalize findings and to assess the extent to which green entrepreneurship can contribute to broader sustainability transitions.

Policy frameworks have increasingly sought to support green and sustainable entrepreneurship through innovative strategies, cluster initiatives, and dedicated funding schemes. National and regional governments have introduced programmes aimed at promoting eco-innovation, supporting start-ups, and building green entrepreneurial ecosystems (Ekinci, 2022; Polychronopoulos & Nguyen-Duc, 2024). Yet, the effectiveness of these interventions is not always clear. Evaluations are often limited, and there is evidence that support instruments may not adequately reach smaller or more vulnerable entrepreneurial groups, including migrants, refugees, and informal sector actors (Borrero & Yousafzai, 2025).

In recent years, scholars have called for more integrative perspectives that link circular economy and sustainable entrepreneurship. Such

approaches highlight that entrepreneurial ventures can play a critical role in operationalising circular principles—by designing repairable products, developing reuse platforms, or introducing reverse logistics systems—and that circular business models can, in turn, provide new opportunities for sustainable entrepreneurs (Neumann, 2021; Kunday, 2023). Nevertheless, the intersections between these fields are still underdeveloped, particularly when it comes to understanding how different types of entrepreneurs, embedded in diverse social and institutional contexts, engage with circular and sustainable practices.

8.2.3 Migrant and refugee entrepreneurship: Theoretical perspectives and empirical insights

Migrant and refugee entrepreneurship has been studied for several decades as a key dimension of migrant integration, socio-economic mobility, and urban transformation. Migrant entrepreneurship typically refers to business activities undertaken by individuals with a migration background that influence both host economies and social structures (Polychronopoulos & Nguyen-Duc, 2024; Kloosterman & Rath, 2001). Refugee entrepreneurship is often considered a specific subset of this broader phenomenon, shaped by distinct legal statuses, protection needs, and trajectories of displacement (Moiz & Turkec, 2022).

A central theoretical framework in this field is the notion of mixed embeddedness, introduced by Kloosterman and Rath (2001). Mixed embeddedness emphasizes that entrepreneurial opportunities for migrants are shaped by the interaction of individual resources and preferences (such as skills, capital, and aspirations), social networks and community structures, and broader opportunity structures at the national, regional, and local levels. This includes regulatory regimes, labor market conditions, urban spatial configurations, and sector-specific dynamics. Rather than attributing migrant entrepreneurship solely to cultural traits or individual risk-taking, mixed embeddedness directs attention to multi-level structures that can either constrain or enable business formation.

Social capital and networks are recurrent themes in the literature. Co-ethnic networks can provide start-up capital, labor, information, and access to suppliers and customers, thereby compensating for migrants' limited access to formal financial institutions or mainstream business networks (Becerikli & Varol, 2024; Eraydin et al., 2010). At the same time, an overreliance on tightly bound co-ethnic circuits can limit market reach and technological upgrading. Bridging ties to majority-population networks, institutions, and diverse customer bases are therefore seen as

crucial for business growth and long-term integration (Eraydin et al., 2010; Polychronopoulos & Nguyen-Duc, 2024).

Empirical research documents a range of motivations that drive migrants into entrepreneurship, including opportunity recognition, aspirations for autonomy, and the desire to maintain cultural identity, but also blocked mobility in wage labor markets, discrimination, and precarious legal statuses (Paksoy & Özbezek, 2023; Eyitmiş & Sezer, 2022). In many contexts, self-employment is simultaneously a strategy of economic survival and a route to upward mobility, especially where migrants face language barriers, non-recognition of qualifications, or sectoral segmentation in employment.

Migrant and refugee entrepreneurs, however, encounter numerous barriers along the entrepreneurial life cycle. These include restricted access to credit and formal finance, complex bureaucratic requirements, unstable legal conditions, limited language proficiency, and discriminatory practices from banks, landlords, or regulatory agencies (Moiz & Turkec, 2022; Parin & Kılıç, 2022). Gendered dynamics often compound these constraints, with migrant women facing additional obstacles related to care responsibilities, conservative norms, and lower control over financial resources (Atasü-Topcuoğlu, 2019).

Despite these challenges, migrant entrepreneurship can generate significant contributions to host economies and societies. Studies highlight its role in job creation, innovation, urban revitalization, and the diversification of local markets (Garg & Phayane, 2014; Raimi & Mahmoud, 2025). Migrant-owned businesses can foster cross-cultural interactions, create niche markets for ethnic products and services, and support transnational trade networks. Bibliometric analyses indicate that research on migrant entrepreneurship has grown substantially, with increasing attention to issues of integration, social innovation, and policy frameworks (Habip & Kandemir, 2024).

Yet, this body of work has also been critiqued for several limitations. Many studies rely on small or convenience samples, are geographically concentrated in a few destination countries, and rarely adopt longitudinal designs that could capture business trajectories over time (Kunday, 2023; Kazanoğlu, 2023). Informal and precarious entrepreneurial activities, which are often prevalent among migrants and refugees, tend to be understudied due to data constraints and methodological challenges. Furthermore, environmental dimensions of migrant entrepreneurship—such as energy use, waste practices, or engagement with green markets—have received very limited attention. This absence is particularly striking given the growing policy emphasis on "green transitions" and the need to ensure that these transformations are socially inclusive.

8.2.4 Connecting the Dots: Migrant entrepreneurs in circular and social circular economies

The intersection between circular economy, green entrepreneurship, and migrant or refugee entrepreneurship is only beginning to be conceptualized in the literature. One promising avenue is the emerging notion of a "social circular economy", which underscores the potential of circular initiatives to address environmental challenges while also fostering social inclusion, community empowerment, and local development (Lettmann & Schmoeckel, 2022). In this view, circular practices—such as repair workshops, reuse centers, and community-based recycling—are not only mechanisms for resource conservation, but also platforms for skills development, social interaction, and solidarity.

This perspective is particularly relevant for understanding migrant and refugee entrepreneurship in urban contexts, where many migrants operate small businesses in sectors such as retail, services, food, construction, and light manufacturing. These businesses often rely on intensive labor, low margins, and high levels of adaptability. Under conditions of constrained capital and uncertainty, migrant entrepreneurs may resort to practices such as reusing materials, repairing equipment, minimising waste, and sharing resources informally with peers. While these behaviors are frequently motivated by cost reduction and risk management rather than by explicit environmental concerns, they align closely with circular economic principles.

Existing scholarship hints at these connections but rarely examines them systematically. For example, studies of refugee entrepreneurship in host countries have documented how refugees repurpose second-hand equipment, use recycled materials in construction or manufacturing, and participate in informal recycling activities, especially when formal labor market opportunities are limited (Moiz & Turkec, 2022; Zülfikaroğlu, 2024). Research on migrant-led social enterprises also points to initiatives that combine environmental goals—such as waste reduction or upcycling—with social missions like job creation for refugees or training for marginalized youth (From Global Problem to Local Solution, 2022). These cases illustrate the potential of migrant entrepreneurs to act as agents in both environmental and social dimensions of circular transitions.

At the same time, the institutional and policy frameworks that support circular economy and green entrepreneurship do not always take migrant and refugee entrepreneurs into account. Access to green incubators, makerspaces, and innovation programs may be limited by language barriers, legal restrictions, or a lack of targeted outreach (Kunday, 2023; Ekinci, 2022). Funding

schemes for circular innovation often require formal documentation, collateral, and bureaucratic procedures that many newly arrived or precariously situated migrants cannot easily meet. As a result, migrant entrepreneurs may be de facto excluded from formal circular economic ecosystems, even when their everyday practices are de facto circular.

Another underexplored dimension concerns the role of social capital and networks in facilitating or hindering migrant engagement with circular and green initiatives. While co-ethnic networks can provide crucial support for business formation, it is not yet clear how these networks shape attitudes towards sustainability and circularity, or how they influence access to information about green technologies and support programs. Similarly, the potential of bridging networks—connecting migrants to environmental NGOs, local authorities, or green innovation hubs—to foster migrant-led circular projects remains insufficiently studied (Eraydin et al., 2010; Becerikli & Varol, 2024).

The literature also offers little insight into how migrant entrepreneurs themselves conceptualize sustainability and circular economy. It is plausible that many associate sustainability with economic continuity, resilience, and the avoidance of waste in a broad sense, rather than with technical environmental terminology. Such vernacular understandings may be deeply rooted in experiences of scarcity, displacement, and the need to "make do" with limited resources. However, empirical studies that explicitly explore these interpretations and connect them to concrete practices are rare.

8.3 Research Design

8.3.1 Interview sample

The empirical analysis is based on semi-structured interviews with 52 migrant entrepreneurs operating in Türkiye. The participants represent a diverse set of national backgrounds, including Syrians, Iranians, Afghans, Russians, Iraqis, Ukrainians, Uzbeks, Somalis, and Azerbaijanis, reflecting different migration trajectories and legal statuses. They are based in several major and secondary cities such as Istanbul, Ankara, Izmir, Gaziantep, Samsun, Konya, and Trabzon, thus covering a range of urban contexts and local opportunity structures. Table 8.1 summarizes the interview participants (n = 52). Values are shown as n (%).

In terms of economic activity, the interviewees run businesses in sectors including trade, food services, tourism, education, technology, logistics,

Table 8.1 Interview participant characteristics

Characteristic	Category	n (%)
City	Ankara	8 (15.4%)
	Gaziantep	7 (13.5%)
	Istanbul	20 (38.5%)
	Izmir	6 (11.5%)
	Konya	4 (7.7%)
	Samsun	4 (7.7%)
	Trabzon	3 (5.8%)
Nationality/region of origin	Afghanistan	8 (15.4%)
	Azerbaijan	1 (1.9%)
	Iraq	6 (11.5%)
	Iran	9 (17.3%)
	Russia	7 (13.5%)
	Somalia	2 (3.8%)
	Syria	12 (23.1%)
	Ukraine	4 (7.7%)
	Uzbekistan	3 (5.8%)
Gender	Female	22 (42.3%)
	Male	30 (57.7%)
Age group	25–34	19 (36.5%)
	35–44	19 (36.5%)
	45–54	11 (21.2%)
	55+	3 (5.8%)
Education	Associate degree	9 (17.3%)
	High School	13 (25.0%)
	Master's Degree	9 (17.3%)
	Undergraduate	21 (40.4%)
Sector	Agriculture	1 (1.9%)
	Construction	3 (5.8%)
	Consulting	4 (7.7%)
	Education	6 (11.5%)
	Food Sector	6 (11.5%)
	Healthcare	2 (3.8%)
	Logistics	4 (7.7%)
	Automotive	1 (1.9%)
	Technology	5 (9.6%)
	Textiles	4 (7.7%)
	Tourism	6 (11.5%)
	Trade	10 (19.2%)
Years in Türkiye	0–2	5 (9.6%)
	3–5	11 (21.2%)
	6–10	36 (69.2%)

textiles, construction, consulting, healthcare, agriculture, and automotive services. This sectoral heterogeneity provides a rich basis for examining how sustainability and circular practices are interpreted and implemented across different types of small and medium-sized enterprises. All participants had already established and operated their ventures in Türkiye at the time of the interview, with years of residence in the country ranging from a few to nearly ten years, allowing them to reflect on both start-up and consolidation phases of their entrepreneurial journeys.

8.3.2 Data collection

Data were collected through semi-structured interviews, using a common interview guide organised into several thematic blocks. The first block focused on personal background and migration history (education, previous work experience, family situation, timing and reasons for migration to Türkiye, and motivations for becoming an entrepreneur in the host country). The second block concentrated on sustainability and circular economy-related issues, asking participants how they define sustainable business practices, what goals or values guide their decisions, and which concrete practices they associate with sustainability in their daily operations (e.g. resource use, waste management, reuse, repair, energy saving).

A third set of questions explored the process of business formation and development, including bureaucratic procedures, access to finance, regulatory and cultural challenges, and strategies used to cope with these difficulties. A further block examined social networks and embeddedness, with particular attention to co-ethnic ties, local Turkish networks, and any formal support mechanisms such as NGOs, incubators, or municipal programmes. Finally, the interview guide included questions about perceived barriers and plans, inviting participants to reflect on their long-term prospects and on what kinds of support they consider most necessary for sustaining or expanding their businesses.

Interviews were conducted face-to-face where possible, and online when logistical or geographical constraints made in-person meetings difficult. Depending on the preferences and language skills of participants, interviews were held in Turkish or English; where needed, informal translation assistance was used to ensure comprehension. All interviews were conducted with informed consent. They were audio-recorded and subsequently transcribed into text. To protect confidentiality, identifying information was removed from the transcripts and pseudonyms were used in the analysis and in any illustrative quotations.

8.3.3 Analytical approach

The study adopts a qualitative, descriptive, and exploratory analytical strategy. The interview transcripts were subjected to qualitative content analysis, combining deductive and inductive elements. In the first step, an initial coding frame was developed based on the interview guide and the existing literature on sustainability, circular economy, and migrant entrepreneurship. This frame included broad categories such as "understandings of sustainability," "waste and resource practices," "cost-saving and efficiency strategies," "reuse and repair," "formal barriers," "informal barriers," "support networks," and "future prospects."

In a second step, the transcripts were read closely and coded line by line, allowing new, more fine-grained sub-codes to emerge inductively wherever participants introduced themes that were not fully captured by the initial categories. These inductive codes included, for example, references to religious or moral motivations for avoiding waste, perceptions of Turkish consumer expectations regarding quality and cleanliness, and implicit forms of circular behaviors (such as creative repurposing of materials or informal sharing of equipment) that were not labelled by respondents as "sustainability" but nonetheless aligned with circular principles.

The aim of the analysis was not to generate a fully fledged theory, but to identify recurring patterns in how migrant entrepreneurs conceptualize sustainable business, which concrete practices they report, and how these are shaped by their migration history, sector, and local embeddedness. The results are therefore presented in a thematic, narrative form rather than in the form of quantified comparisons. Themes were organised around three main dimensions: (1) definitions and meanings of sustainability and circularity, (2) everyday business practices related to resource use, waste, reuse, and repair, and (3) perceived constraints, support mechanisms, and future needs.

Throughout the analysis, participants' own words and categories were retained as far as possible, and illustrative quotations are used in the findings section to convey how migrant entrepreneurs themselves describe their understandings and practices. These qualitative insights are then linked back to the broader literature on circular economy and migrant entrepreneurship, to highlight both convergences and divergences between policy and academic discourses and the lived realities of migrant-owned businesses in Türkiye.

8.4 Findings

This section presents the main descriptive results of the study, organised around three interrelated dimensions: understandings of sustainability and

circularity, everyday practices that resonate with circular principles, and perceived constraints and needs. In this way, the analysis connects how migrant entrepreneurs think about sustainability and circularity with what they do in their daily business operations, and with the structural conditions that shape these practices.

8.4.1 Understandings of sustainability and circularity

Across the interviews, sustainability is primarily understood in two overlapping ways. First, many migrant entrepreneurs frame sustainability as business continuity and economic viability. In this perspective, a sustainable business is one that can survive in a competitive and uncertain environment, maintain a stable customer base, and generate sufficient income over time. Profitability, reliability, and the ability to "stand on one's feet" are central to this understanding.

Second, a substantial number of respondents associate sustainability with avoiding waste and using resources prudently. Even when they do not explicitly use technical environmental terminology, they talk about saving electricity and water, buying only what is necessary, and not discarding materials or products that can still be repaired or reused. Environmental concerns (such as reducing pollution or protecting nature) appear in the narratives, but they are often intertwined with moral (e.g. avoiding "israf") and economic considerations.

By contrast, the concept of a circular economy as a named policy or academic term is generally less familiar. However, when the core idea is explained—keeping products and materials in use for as long as possible, repairing instead of replacing, and finding alternative uses for by-products or waste—many entrepreneurs recognise that these principles are already embedded in their everyday practices. In other words, circularity is often present in practice, but not necessarily as an explicit concept. This gap between practice and discourse is an important feature of the empirical material.

8.4.2 Everyday practices that resonate with circular principles

The interview data reveals a wide range of everyday practices that strongly resonate with circular economic principles, even if they are rarely labelled as such by the actors themselves. These practices are particularly visible in three areas: maintenance and repair, reuse and repurposing, and resource efficiency.

In terms of maintenance and repair, many entrepreneurs emphasise that they try to extend the lifespan of equipment, furniture and fixtures by repairing them repeatedly rather than purchasing new items. Machines, refrigerators, display units and even basic tools are often fixed several times, either by the entrepreneurs themselves or by local repair services. This approach is usually motivated by cost savings and limited capital, but it also substantially reduces material throughput.

Reuse and repurposing practices are also widespread. Packaging materials (boxes, bags, containers) are commonly reused multiple times; in some cases, entrepreneurs actively collect usable packaging from other businesses. Leftover materials—such as fabric scraps, wood offcuts or surplus food—are sometimes repurposed for new products, passed on to other users, or donated. Such arrangements effectively keep materials circulating within local networks, even though they are rarely formalised.

Finally, many respondents describe efforts to monitor and reduce energy and water consumption in their businesses. Examples include turning off lights and equipment outside working hours, limiting the use of heating or cooling to peak periods, and installing basic energy-saving devices when affordable. Again, these actions are framed more as strategies for lowering bills and coping with financial uncertainty than as environmental interventions, but they nonetheless align with circular and sustainable resource management.

Taken together, these practices suggest that migrant entrepreneurs engage in a form of everyday, low-cost circularity that emerges from necessity, frugality and entrepreneurial improvisation. Rather than being driven by formal policy frameworks or environmental branding, circular practices are embedded in the routine problem-solving of running a small business under constrained conditions.

These everyday, low-cost circular practices also have clear implications for fair consumption and consumer rights. Repeated maintenance and repair help keep equipment and products in use for longer and can improve affordability for customers by lowering prices or avoiding the need for frequent replacement, an important consideration in the context of inflation and constrained household budgets. Reuse and repurpose practices may further widen fair access by enabling second-hand options, cheaper inputs, and locally circulating materials that can be converted into lower-cost goods and services, especially for consumers who might otherwise be priced out of new products. At the same time, the prominence of repair highlights the practical relevance of durability and the right to repair, as continued usability often depends on access to maintenance services, spare parts, and know-how. Finally, when

repair and reuse are organised through local providers and neighborhood networks, they can contribute to local resilience by reducing dependence on long and fragile supply chains while sustaining local livelihoods (European Commission, 2020; European Commission, 2023; OECD, 2023).

In this sense, what appears as necessity-driven improvisation at the firm level can simultaneously function as an inclusion-oriented form of circularity that supports more affordable and accessible consumption in everyday markets.

8.4.3 Perceived constraints and needs

Despite the presence of such circular practices, entrepreneurs identify several constraints that limit their ability to maintain, expand or formalise these efforts, as well as specific needs for support. A first and pervasive constraint is limited access to financial resources. Many respondents report that they would like to invest in more efficient machinery, better insulation, or higher-quality durable materials, but that restricted access to credit, high interest rates and unstable income streams force them to prioritise short-term survival over long-term efficiency. As a result, they rely on low-cost practices such as repair and reuse but struggle to undertake more capital-intensive improvements that could substantially reduce resource consumption and waste. A second constraint concerns regulatory and bureaucratic complexity. Navigating business registration, tax obligations, inspections and sector-specific regulations is described as time-consuming and demanding, particularly for those facing language barriers. Under these circumstances, environmental certifications, participation in formal recycling schemes or engagement with circular economy programmes often appear as additional burdens rather than accessible opportunities. Third, entrepreneurs frequently mention information and language barriers. While many express interest in learning more about cost-saving, environmentally sound and innovative business models, they often do not know where to access reliable and relevant information. Existing training and support programmes are perceived as either too general, not tailored to small enterprises, or not sufficiently accessible for migrant entrepreneurs in terms of language and format.

Considering these constraints, respondents articulate several concrete needs. They call for practical, sector-specific training in resource and waste management that is adapted to the realities of small businesses and, where necessary, available in multiple languages. They also emphasise the importance of clearer and more supportive communication from local authorities about rules and opportunities related to waste, recycling and energy efficiency,

as well as better access to small-scale finance or grants for upgrading equipment. Finally, they highlight the value of networking spaces where migrant and local entrepreneurs can exchange experiences and learn from each other's cost-saving and environmentally beneficial practices.

Overall, the findings indicate that migrant entrepreneurs already contribute to sustainability and circularity through a dense set of informal, frugal and repair-oriented practices. However, without targeted and context-sensitive support that addresses financial, regulatory and informational barriers, these contributions are unlikely to be fully recognised, scaled up or integrated into broader circular economy strategies.

8.5 Conclusion

This study has examined how migrant entrepreneurs engage with sustainability and circularity within the specific context of Turkish cities, focusing on their understandings, everyday practices and the constraints and needs that shape these practices. Drawing on qualitative interviews with a diverse group of entrepreneurs differentiated by city, nationality, sector and duration of stay, the analysis has shown that migrant-owned businesses are already embedded in dense webs of frugal, repair-oriented and resource-saving practices that closely resonate with circular economy principles, even when these are not explicitly named as such.

A first key conclusion is that sustainability and circularity are understood in ways that combine economic survival, moral notions of avoiding waste and, to a lesser extent, environmental concerns. For many respondents, running a "sustainable" business primarily means ensuring continuity under uncertain and often precarious conditions, while at the same time minimising unnecessary waste of money, materials and energy. Although the formal language of the circular economy is rarely used, the core ideas of extending product lifetimes, repairing rather than replacing, reusing materials and making do with limited resources are deeply present in their everyday reasoning and decision-making.

Second, the findings demonstrate that migrant entrepreneurs actively enact circularity through a wide range of everyday practices. These include repeated maintenance and repair of equipment and premises, creative forms of reuse and repurposing, and a strong orientation towards resource efficiency in energy, water and raw material use. Such practices are often driven by necessity—limited capital, high uncertainty and restricted access to formal support—but they nonetheless contribute to reducing waste and prolonging the life of products and infrastructures. In this sense, migrant-led businesses

participate in urban sustainability transitions in ways that remain largely informal, unrecognised and undervalued in mainstream circular economy debates.

At the same time, the analysis highlights significant constraints that limit the capacity of migrant entrepreneurs to sustain, deepen or scale up these practices. Restricted access to finance, bureaucratic complexity, information and language barriers, and the fragility of their legal and economic position all work against long-term planning and investment in more systematic forms of circularity. While co-ethnic and wider societal networks provide important support in terms of knowledge, customers and emotional backing, they are not always sufficient to compensate for structural disadvantages or to connect migrant entrepreneurs to formal circular economy programmes, green funding schemes or institutional innovation networks.

These findings carry important implications for policy and practice. They suggest that migrant entrepreneurs should be recognised not only as vulnerable economic actors, but also as potential partners in sustainability transitions whose existing practices can be built upon rather than ignored. Policy measures that aim to promote circularity need to be sensitive to the realities of small, low-margin businesses and align environmental objectives with concrete benefits such as cost reductions, risk mitigation and market access. Strengthening the interfaces between migrant entrepreneurs, local authorities, mainstream business organisations and environmental initiatives could help bridge the current gap between informal, practice-based circularity and formal circular economy agendas.

To move beyond generic calls for "support", the evidence presented in this study points to a set of pragmatic policy levers through which public actors could enable migrant-owned microbusinesses to translate already-existing frugal, repair-oriented and resource-saving practices into safer, more reliable and more professionally recognised circular services. Importantly, these measures would not aim to "create" circularity from scratch; rather, they would reduce the constraints that currently keep many practices informal, low-margin and precarious, despite their clear contribution to extending product lifetimes and reducing waste.

First, policymakers can design low-burden and staged formalisation pathways that reflect the realities of micro-enterprises operating under uncertainty. Simplified registration and licensing procedures, multilingual one-stop information points, and clear guidance on municipal requirements and taxation can lower entry barriers while improving accountability and consumer protection. A graduated compliance approach (for example, reduced fees and reporting requirements in the initial period, paired with clear milestones)

would allow businesses to formalise without facing an immediate cost shock that undermines economic survival.

Second, capacity-building should be tailored to the everyday operational conditions of small repair, maintenance, reuse and refurbishment activities. Short, modular training and voucher schemes could focus on repair standards and product safety, quality assurance, basic bookkeeping and pricing, customer rights and warranty practices, as well as practical digital skills for sourcing parts and reaching customers. Delivery can be strengthened through partnerships between municipalities, chambers of commerce, vocational training institutions and civil society organisations, ensuring that training is accessible in both language and time requirements.

Third, targeted upgrading support can help move "survival repair" activities toward more professional circular service provision. Small grants, matched funding, or equipment/tool libraries can enable investments in safer workspaces, appropriate tools and testing devices, inventory systems, and compliant waste handling. In parallel, municipal service contracting and public procurement can be structured so that micro-firms can realistically participate (for example, through smaller "circular service lots" related to repair and refurbishment of municipal equipment or furniture). Circular economy-focused incubators or mentoring programmes could additionally connect migrant entrepreneurs to supplier networks and more stable second-hand and spare-part markets, reducing reliance on precarious informal channels.

Taken together, such measures operationalise "fair consumption" in a tangible way: they help maintain affordability through repair and reuse, raise durability and safety standards, and widen access to the benefits of circular transitions for both low-income consumers and migrant entrepreneurs across Turkish cities.

Overall, the evidence points to the need for future research and policy to take migrant entrepreneurs more seriously as actors in sustainability transitions: not only as subjects of integration or targets of support, but as agents whose situated knowledge, networks and frugal innovations can enrich and challenge dominant understandings of what a circular and sustainable urban economy might look like.

This study has several limitations that should be borne in mind when interpreting the findings. First, the analysis draws on participants' self-reported accounts of business practices and sustainability- or circularity-related behaviors. While qualitative interviews are well suited to capturing meanings, motivations and constraints, such accounts may be shaped by recall bias, social desirability, and variation in how respondents understand terms such as "sustainability" and "circularity", particularly where formal

policy language is not part of everyday business discourse. We therefore interpret these accounts as narratives of perceived and enacted routines rather than as independently verified indicators of environmental performance.

Second, the study is explicitly exploratory in scope and qualitative in design. The interview sample was constructed to capture diversity across city, sector, nationality and duration of stay, but it is not intended to be statistically representative of migrant entrepreneurs in Türkiye. As a result, the contribution of the study lies in analytical generalisation: identifying mechanisms, tensions and enabling conditions that may be relevant in comparable urban settings, rather than providing population-level estimates about the prevalence of specific practices. Future research could strengthen inference through triangulation, for example by combining interviews with observation, documentation of material and waste flows, or relevant administrative and programme data, and by testing the patterns identified here across larger and more varied samples.

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